No.



9800075

THE UNITED STATES OF AMERICA

Pioneer Hi-Bred International, Inc.

INCIPAL THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPEBUISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE GOTT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR ORITING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE PURPOSE, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT OF BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'94B41'

In Jestimenn Incress, I have hereunto set my hand and caused the seal of the Hant Harista Fraterian Office to be affixed at the City of Washington, D.C. this eighth day of Whay, in the year of our Lord two thousand one.

Allast: "William S.

alank Post

Aling Commissioner Plant Variety Protection Office Agricultural Marketing Service Nary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE The following statements are made in accordance with the Privacy Act of AGRICULTURAL MARKETING SERVICE 1974 (5 U.S.C. 552a). SCIENCE DIVISION - PLANT VARIETY PROTECTION OFFICE Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426). APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE (Instructions and information collection burden statement on reverse) 1. NAME OF APPLICANT(S) (as it is to appear on the Certificate) 3. VARIETY NAME EXPERIMENTAL NUMBER Pioneer Hi-Bred International, Inc. 94B41 4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) 5. TELEPHONE (include area code) FOR OFFICIAL USE ONLY PVPO NUMBER 515-270-3582 7100 NW 62nd Ave 9890075 P.O. Box 1000 (include area code) Johnston, Iowa 50131-1000 2 Jan 98 515-253-2288 7. GENUS AND SPECIES NAME 8. FAMILY NAME (Botanical) Glycine max L. Leguminosae 2450.00 9. CROP KIND NAME (Common name) Soybean 10. IF THE APPLICANT NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) (Common name) Corporation 11. IF INCORPORATED, GIVE STATE OF INCORPORATION 12. DATE OF INCORPORATION May 6, 1926 13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS John Grace Dr. Daria Schmidt 7300 NW 62nd Ave. Yuumil2001 Jean Bromert (Copy) 515-270-3582 7100 NW 62nd Ave. (include area code) P.O. Box 1000 Johnston, Iowa 50131-1004 Johnston, Iowa 50131-1000 515-253-2288 16. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse) a. Exhibit A. Origin and Breeding History of the Variety b. Exhibit B. Statement of Distinctness c. Exhibit C. Objective Description of the Variety d. X Exhibit D. Additional Description of the Variety Exhibit E. Statement of the Basis of the Applicant's Ownership f. 📝 Voucher Sample (2,600 viable untreated seeds or, for tuber propagated varieties verification that tissue culture will be deposited and maintained in a public repository) g. Filing and Examination Fee (\$2450), made payable to "Treasurer of the United States" (Mail to PVPO) 17. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY, AS A CLASS OF CERTIFIED SEED (See Section 83(a) of the Plant Variety Protection Act)? YES If "yes," answer items 18 and 19 below) NO "If "no," go to item (20) 19, IF "YES" TO ITEM 18, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED? FOUNDATION REGISTERED YES CERTIFIED YE\$ (if "yes," give names of countries and dates) U.S. - 1997 applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificat The understand applicant(s) is(are) the owner(s) of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act,

Exhibit A. Origin and Breeding History of the Variety

Soybean Variety 94B41

Variety 94B41 evolved from a 1993 cross of (A3307/CM286N sib)/{9362/[9392/(9392/40-3-2)]}.

It is an F3-derived variety which was advanced to the F3 generation by modified single seed descent. The F4 progeny row of 94B41 was grown in the summer of 1994. Subsequently, 94B41 has undergone two years of extensive testing and purification and has been observed by the breeder to be uniform and stable for all plant traits from generation to generation, with no evidence of variants. On the basis of yield, standability, resistance to cyst nematode races 3 and 14, and resistance to labeled Roundup Brand herbicides, variety 94B41 was released for sale.

The purification block was grown during the summer of 1995. Two acres of 94B41 (breeders seed) were grown in the winter of 1995. 93 acres of parent seedstock (foundation seed equivalent) were grown in the summer of 1996 and 4,000 bushels were harvested.

Exhibit B. Statement of Distinctness

Soybean Variety 94B41

Variety 94B41 is most similar to 9444 and A4138.

9444, A4138 and 94B41, all have white flowers, yellow seeds, and are resistant to soybean cyst nematode (*Heterodera glycines*) race 3. However, 9444 and A4138 have tawny pubescence and black hila whereas 94B41 has gray pubescence and buff hila.

In addition, 94B41 is resistant to labeled rates of Roundup Brand herbicides whereas 9444 and A4138 are susceptible.

U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE SEED DIVISION - PLANT VARIETY PROTECTION OFFICE BELTSVILLE, MARYLAND 20705

OBJECTIVE DESCRIPTION OF VARIETY SOVREAN (Glycine may 1.)

SOYB	<u>EAN (Glycine max L.)</u>	
NAME OF APPLICANT(S)	TEMPORARY DESIGNATION	VARIETY NAME
Pioneer Hi-Bred International, Inc.		94B41
ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code)		FOR OFFICIAL USE ONLY
7300 N.W. 62nd Ave., P.O. Box 1004		PVPO NUMBER
Johnston, IA 50131-1004		9800075
Choose the appropriate response which characterizes the variety in the number of boxes provided, place a zero on the first box when numadequate soybean variety description. Other characters should be de	ber is 9 or less (e.g., o 9). Sta	rred characters 👉 are considered fundamental to an
1. SEED SHAPE:		
2	W	
1 = Spherical (L/W, L/T, and T/W ratios = < 1.2 3 = Elongate (L/T ratio > 1.2; T/W = < 1.2)	· ·	Il Flattened (L/W ratio > 1.2; L/T ratio = < 1.2) Flattened (L/T ratio > 1.2; T/W > 1.2)
★ 2. SEED COAT COLOR: (Mature Seed)		
1 1 = Yellow 2 = Green 3 = Brown	4 = Black 5 = Other (Spe	ecify)
3. SEED COAT LUSTER: (Mature Hand Shelled Seed)		
1 = Dull ('Corsoy 79'; 'Braxton')	2 = Shiny ('Nebsoy'; 'Ga	soy 17')
★ 4. SEED SIZE: (Mature Seed)		
1 5 Grams per 100 seeds		
★ 5. HILUM COLOR: (Mature Seed)		
1 1 = Buff 2 = Yellow 3 = Brown 4 = Gray	5 = Imperfect Black 6 = Bl	lack 7 = Other (Specify)
★ 6. COTYLEDON COLOR: (Mature Seed)		
1 1 = Yellow 2 = Green		
★ 7. SEED PROTEIN PEROXIDASE ACTIVITY:		
1 1 = Low 2 = High		
★ 8. SEED PROTEIN ELECTROPHORETIC BAND:		
1 = Type A (SP1 a) 2 = Type	B (SP1 b)	
★ 9. HYPOCOTYL COLOR:		
1 = Green only ('Evans'; 'Davis')	2 = Green with bron:	ze band below cotyledons ('Woodworth'; 'Tracy')
3 = Light Purple below cotyledons ('Beeson';	'Pickett 71')	
4 = Dark Purple extending to unifoliate leave	s ('Hodgson'; 'Coker Hampton	266A')
★ 10. LEAFLET SHAPE:		
3 1 = Lanceolate 2 = Oval 3 = 0	vate 4 = Other (Specif	ý)
FORM LMGS-470-57 (6-83) (Edition of 2-82 is obsolete.)		Page 1 of 4

		varioty (taillo o bar)
	11. LEAFLET SIZE:	
	2 1 = Small ('Amsoy 71'; 'A5312') 2 = Medium ('Corsoy 79'; 'Gasoy 17')	
	3 = Large ('Crawford'; 'Tracy')	
	12. LEAF COLOR:	
	2 1 = Light Green ('Weber'; 'York') 2 = Medium Green ('Corsoy 79'; 'Braxton') 3 = Dark Green ('Gnome'; 'Tracy')	
*	13. FLOWER COLOR:	
	1 1 = White 2 = Purple 3 = White with purple throat	
*	14. POD COLOR:	
	1 1 = Tan 2 = Brown 3 = Black	
*	15. PLANT PUBESCENCE COLOR:	
	1 1 = Gray 2 = Brown (Tawny)	
	16. PLANT TYPES:	
	2 1 = Stender ('Essex'; 'Amsoy 71') 2 = Intermediate ('Amcor'; 'Braxton') 3 = Bushy ('Gnome'; 'Govan')	
*	17. PLANT HABIT:	The second secon
	1 = Determinate ('Gnome'; 'Braxton') 2 = Semi-Determinate ('Will')	
	3 = Indeterminate ('Nebsoy'; 'Improved Pelican')	
*	18. MATURITY GROUP:	
Γ	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	8 = V
11 <u>L</u>	9 = VI	0 - Y
*	19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)	
	BACTERIAL DISEASES:	
	★ 0 Bacterial Pustule (Xanthomonas phaseoli var. sojensis)	
	★ 1 Bacterial Blight (Pseudomonas glycinea)	
	★ 0 Wildfire (Pseudomonas tabaci)	
	FUNGAL DISEASES:	
	★ 1 Brown Spot (Septoria glycines)	
	Frogeye Leaf Spot (Cercospora sojina)	
	Race 1 Race 2 Race 3 Race 4 Race 5	Other (Specify)
	Target Spot (Corynespora cassiicola)	
	Downy Mildew (Peronospora trifoliorum var. manshurica)	
	Powdery Mildew (Microsphaera diffusa)	
	★ 0 Brown Stem Rot (Cephalosporium gregatum)	

FORM LMGS-470-57 (6-83)

19. DISEASES REACTION: (I	Enter 0 = Not Tested; 1 = Susceptible	; 2 = Resistant) (Continued)					
FUNGAL DISEASES: (Continued)							
★ 1 Pod and Stem Blight	(Diaporthe phaseolorum var; sojae)						
O Purple Seed Stain (6	Cercospora kikuchii)	·					
1 Rhizoctonia Root Rot							
	hytophthora megasperma var. sojae)						
)				
Race 1 Race 1 Race	Tace 7	Race 5 Race 6	Race 7				
Race 8 Race	9 Other (Specify)	•					
VIRAL DISEASES:		•					
Bud Blight (Tobacco I	Ringspot Virus)						
Yellow Mosaic (Bean	Yellow Mosaic Virus)						
★ 1 Cowpea Mosaic (Cow	oea Chlorotic Virus)						
1 Pod Mottle (Bean Pod	Mottle Virus)						
★ 1 Seed Mottle (Soybean	Mosaic Virus)						
NEMATODE DISEASES:	1 (Hetavadeva vivaines)						
Soybean Cyst Nemator		2					
Race 1 Race	2 2 Race 3 Race 4	Other (Specify) 14					
Lance Nematode (Hop	lolaimus Colombus)						
★ 0 Southern Root Knot Ne	ematode (Meloidogyne incognita)						
★ 0 Northern Root Knot No	ematode (Meloidogyne Hapla)						
0 Peanut Root Knot Nen	natode (Meloidogyne arenaria)						
Reniform Nematode (Rotylenchulus reniformis)						
OTHER DISEASE NOT	ON FORM (Specify)						
20. PHYSIOLOGICAL RESPON	SES: (ENTER 0 = Not tested, 1 = Sus	ceptible, 2 = Resistant)					
★ 0 Iron Chlorosis on Calca	areois Soil		,				
Other (Specify)	Other (Specify)						
21. INSECT REACTION: (ENTE	R 0 = Not tested, 1 = Susceptible, 2 =	Resistant)					
0 Mexican Bean Beetle (Epilachna Varivestis)						
O Potato Leaf Hopper (En	npoasca fabae)	•					
Other (Specify)							
22. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED.							
CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY				
Plant Shape	A4138	Seed Coat Luster	9362				
Leaf Shape A4138 Seed Size 9392							
Leaf Color A4138 Seed shape 9392							
Leaf Size	A4138	Seedling Pigmentation	9362				
FORM LMGS-470-57 (6-83)		· · · · · · · · · · · · · · · · · · ·	PAGE-3-of-4				

23. GIVE DATA FOR SUBMITTED AND SIMILAR STANDARD VARIETY: Paired Comparison Data

VARIETY	NO. OF DAYS	PLANT LODGING SCORE	CM PLANT HEIGHT	LEAFLET SIZE		SEED CONTENT		SEED SIZE	NO.
	MATURITY			CM Width	CM Length	% Protein	% Oil	G/100 SEED	SEEDS POD
Submitted 94B41	117	1.5	104			41.2	22.1	14	3
Name of Similar Variety A4138	117	2.5	99			40.5	22.8	17	3

PUBLICATIONS USEFUL AS REFERENCE AIDS FOR COMPLETING THIS FORM:

- 1. Caldwell, B.E., ed. 1973. Soybeans: Improvement, Production, and Uses. Amer. Soc. Agron. Monograph No. 16.
- 2. Buttery, B.R. and R.I. Buzzell. 1968. Peroxidase activity in seeds of soybean varieties. Crop Sci., 8: 722-725.
- 3. Hymowitz, T. 1973. Electrophoretic analysis of SBTI-A2 In the USDA soybean germplasm collection. Crop. Sci., 13: 420-421
- 4. Payne, R.C. and L.F. Morris. 1976. Differentiation of soybean cultivars by seedling pigmentation patterns. J. Seed Technol. 1:1-19

Exhibit D. Additional Description of the Variety

Soybean Variety 94B41

In Exhibit C we have identified variety 94B41 as susceptible to bacterial blight, stem canker, brown spot, pod and stem blight, rhizoctonia root rot, bud blight, yellow mosaic, cowpea mosaic, pod mottle and seed mottle.

This does not mean that variety 94B41 is any worse for these problems than other varieties of similar maturity. Rather, we do not consider 94B41 to be immune to these problems. Therefore, we have chosen to be conservative and have identified the line as "susceptible".

U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE		The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.				
EXHIBIT E STATEMENT OF THE BASIS OF OWNERSH	Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confiden					
1. Name Of Applicant(s)	2. Temporary Designation Or Experimental Number	3. Variety Name				
Pioneer Hi-Bred International, Inc.		94B41				
4. Address (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)	5. Telephone (include area code)	6. Fax (include area code)				
7100 NW 62nd Ave	515-270-3582	515-253-2288				
P.O. Box 1000	7. PVPO Number					
Johnston, Iowa 50131-1000	98	00075				
8. Does the applicant own all rights to the variety? Mark an "X" ir		✓ YES NO				
9. Is the applicant (individual or company) a U.S. national or U.S. If no, give name of country	based company?	¥ YES □ NO				
10. Is the applicant the original owner? YES	NO If no, please answer the following:					
a. If original rights to variety were owned by	individual(s), is (are) the original owner(s) a U.S	. national(s)?				
☐ YES ☐ NO If no, give na	ne of country					
b. If original rights to variety were owned by	a company, is the original owner(s) a U.S. base	d company?				
11. Additional explanation on ownership (If needed, use revers	e for extra space):					
PLEASE NOTE:						
Plant variety protection can be afforded only to owners (not licen-	sees) who meet one of the following critoria:					

- 1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
- 2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
- 3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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